CLAIM SET AS AMENDED

1. (Currently Amended) A metal carrier for a catalyst comprising:

a honeycomb structure made of ferritic stainless steel and shaped in a cylindrical form, said honeycomb structure having a plurality of air vents, ~~the air vents being substantially equal in size to each other,~~ the honeycomb structure having alternating waved plates and base plates, the waved plates having first sections ~~that are substantially flat~~, and each of the base plates having an inner and an outer surface being disposed against the first ~~flat~~ sections of adjoining ones of the waved plates located inwardly and outwardly thereof, respectively, and the waved plates also having second sections extending outwardly from one of the base plates to the base plate immediately adjacent thereto, ~~the second sections of the wave plates extending outwardly such that a wave height of the wave plates remains substantially constant,~~

wherein the second sections of the waved plates are ~~uninterrupted~~ planar surfaces extending an axial direction from one end of the metal carrier to another, thus forming the air vents as ~~uninterrupted~~ passages from one end of the metal carrier to the other end;

a cylindrical case covering an outer peripheral surface of the honeycomb structure, wherein the cylindrical case is composed of ferritic stainless steel ~~containing~~ including Mo and phosphorous, said Mo content in the ferritic stainless steel is in the range of 0.30 wt% < Mo < 2.50 wt%; and

a catalyst layer being formed on exposed surfaces of said honeycomb structure and on an interior surface of said cylindrical case, and since the material of the case is the same as

that of the honeycomb structure, a coefficient of linear expansion of the case is substantially the same as a coefficient of linear expansion of the honeycomb structure, thereby suppressing thermal deformation of the case,

wherein each of the plurality of air vents existing at an outermost position of the honeycomb structure is formed by cooperation of an entire inner face of the case and a waved plate of the honeycomb structure.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Original) The metal carrier for a catalyst according to claim 1, wherein the catalyst layer is a noble metal formed on the honeycomb structure.

7. (Original) The metal carrier for a catalyst according to claim 6, wherein the noble metal is platinum.

8. (Currently Amended) A metal carrier for a catalyst comprising:

a honeycomb structure made of ferritic stainless steel and having a catalyst layer formed thereon, said honeycomb structure having a plurality of air vents, ~~the air vents being substantially equal in size to each other,~~ the honeycomb structure having alternating waved plates and base plates, the waved plates having first sections that are substantially flat, and

each of the base plates having an inner and an outer surface being disposed against the first flat sections of adjoining ones of the waved plates located inwardly and outwardly thereof, respectively, and the waved plates also having second sections extending outwardly from one of the base plates to the base plate immediately adjacent thereto, ~~the second sections of the wave plates extending outwardly such that a wave height of the wave plates remains substantially constant,~~

wherein the second sections of the waved plates are ~~uninterrupted~~ planar surfaces extending an axial direction from one end of the metal carrier to another, thus forming the air vents as ~~uninterrupted~~ passages from one end of the metal carrier to the other end;

a case covering an outer surface of the honeycomb structure, wherein the case is composed of ferritic stainless steel ~~containing~~ including Mo and phosphorous, said Mo content in the ferritic stainless steel is in the range of 0.30 wt% < Mo < 2.50 wt%,

wherein said catalyst layer being formed on exposed surfaces of said honeycomb structure and on an interior surface of said cylindrical case, and since the material of the case is the same as that of the honeycomb structure, a coefficient of linear expansion of the case is substantially the same as a coefficient of linear expansion of the honeycomb structure, thereby suppressing thermal deformation of the case, and

wherein each of the plurality of air vents existing at an outermost position of the honeycomb structure is formed by cooperation of an entire inner face of the case and a waved plate of the honeycomb structure.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Original) The metal carrier for a catalyst according to claim 8, wherein the catalyst layer is a noble metal formed on the honeycomb structure.

14. (Original) The metal carrier for a catalyst according to claim 13, wherein the noble metal is platinum.

15. (Currently Amended) A metal carrier for a catalyst comprising:

a honeycomb structure made of ferritic stainless steel, said honeycomb structure having a plurality of air vents ~~which are substantially equal in size to each other~~, the honeycomb structure having alternating waved plates and base plates, the waved plates having first sections that are substantially flat, and each of the base plates having an inner and an outer surface being disposed against the first flat sections of adjoining ones of the waved plates located inwardly and outwardly thereof, respectively, the waved plates also having second sections extending outwardly from one of the base plates to the base plate immediately adjacent thereto, ~~the second sections of the wave plates extending outwardly such that a wave height of the wave plates remains substantially constant,~~

wherein the second sections of the waved plates are ~~uninterrupted~~ planar surfaces extending an axial direction from one end of the metal carrier to another, thus forming the air

vents as ~~uninterrupted~~ passages from one end of the metal carrier to the other end;

a case covering an outer peripheral surface of the honeycomb structure, wherein the case is composed of ferritic stainless steel ~~containing~~ including Mo, said Mo content in the ferritic stainless steel is 1.2 wt%; and

a catalyst layer being formed on exposed surfaces of said honeycomb structure and on an interior surface of said cylindrical case, and since the material of the case is the same as that of the honeycomb structure, a coefficient of linear expansion of the case is substantially the same as a coefficient of linear expansion of the honeycomb structure, thereby suppressing thermal deformation of the case, wherein the plurality of air vents existing at an outermost position of the honeycomb structure is formed by cooperation of an entire inner face of the case and a waved plate of the honeycomb structure; and

when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase is less than 2 wt%.

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) The metal carrier for a catalyst according to claim 15, wherein the catalyst layer is a noble metal formed on the honeycomb structure.

19. (Previously Presented) The metal carrier for a catalyst according to claim 18, wherein the noble metal is platinum.

20. (Currently Amended) A metal carrier for a catalyst comprising:

a honeycomb structure made of ferritic stainless steel and having a catalyst layer formed thereon, said honeycomb structure having a plurality of air vents ~~which are substantially equal in size to each other~~, the honeycomb structure having alternating waved plates and base plates, the waved plates having first sections that are substantially flat, and each of the base plates having an inner and an outer surface being disposed against the first flat sections of adjoining ones of the waved plates located inwardly and outwardly thereof, respectively, the waved plates also having second sections extending outwardly from one of the base plates to the base plate immediately adjacent thereto, ~~the second sections of the wave plates extending outwardly such that a wave height of the wave plates remains substantially constant,~~

wherein the second sections of the waved plates are ~~uninterrupted~~ planar surfaces extending an axial direction from one end of the metal carrier to another, thus forming air vents as ~~uninterrupted~~ passages from one end of the metal carrier to the other end;

a case covering an outer surface of the honeycomb structure, wherein the case is composed of ferritic stainless steel ~~containing~~ including Mo, said Mo content in the ferritic stainless steel is ~~1.20wt%~~ 1.20 wt%,

wherein said catalyst layer being formed on exposed surfaces of said honeycomb structure and on an interior surface of said cylindrical case, and since the material of the case is the same as that of the honeycomb structure, a coefficient of linear expansion of the case is substantially the same as a coefficient of linear expansion of the honeycomb structure, thereby suppressing thermal deformation of the case, and

wherein each of the plurality of air vents existing at an outermost position of the honeycomb structure is formed by cooperation of an entire inner face of the case and a waved plate of the honeycomb structure, and

when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an oxidation increase is less than 1 wt%.

21. (Cancelled)

22. (Cancelled)

23. (Previously Presented) The metal carrier for a catalyst according to claim 20, wherein the catalyst layer is a noble metal formed on the honeycomb structure.

24. (Previously Presented) The metal carrier for a catalyst according to claim 23, wherein the noble metal is platinum.

25. (New) The metal carrier for a catalyst according to claim 1, wherein the Mo content in the ferritic stainless steel is 1.2 wt%, and

-when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase as less than 2 wt%.

26. (New) The metal carrier for a catalyst according to claim 1, wherein the Mo content in the ferritic stainless steel is 1.2 wt%, and

-when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an

oxidation increase is .57 wt%.

27. (New) The metal carrier for a catalyst according to claim 1, wherein Mo content in the ferritic stainless steel is 1.2 wt%, and

when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an oxidation increase is less than 1 wt%.

28. (New) The metal carrier for a catalyst according to claim 1, wherein the Mo content in the ferritic stainless steel is 2.5 wt%,

29. (New) The metal carrier for a catalyst according to claim 8, wherein the Mo content in the ferritic stainless steel is 1.2 wt%, and

when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase as less than 2 wt%.

30. (New) The metal carrier for a catalyst according to claim 8, wherein the Mo content in the ferritic stainless steel is 1.2 wt%, and

when the metal carrier is subjected to a heating temperature of 1000° for 20 hours, an oxidation increase is .57 wt%.

31. (New) The metal carrier for a catalyst according to claim 8, wherein Mo content in the ferritic stainless steel is 1.2 wt%, and

when the metal carrier is subjected to a moisture added atmosphere comprising 90 vol % of a mixture gas and a 10 vol % of water, and to a heating temperature of 950° for 20 hours, an oxidation increase is less than 1 wt%.

32. (New) The metal carrier for a catalyst according to claim 8, wherein the Mo content in the ferritic stainless steel is 2.5 wt%,

33. (New) The metal carrier for a catalyst according to claim 15, wherein the case is composed of ferritic stainless steel including phosphorous.

34. (New) The metal carrier for a catalyst according to claim 20, wherein the case is composed of ferritic stainless steel including phosphorous.